MINUTE ITEM

14. REQUEST FOR APPROVAL OF ADDITIONAL CAPITAL EXPENDITURE, WATER-INJECTION PROGRAM; TAR, RANGER, LOWER TERMINAL, AND UPPER TERMINAL ZONES; FAULT BLOCKS. II, III, IV, V, AND VI; WILMINGTON OIL FIELD - L.B.W.O. 10,020.

Following presentation of Calendar Item 23 attached, Commissioner Carr asked for a report on the present situation on the waterflooding program. The Executive Officer stated that the State Supreme Court has issued a Writ of Mandate which will assist in the program going forward.

City Attorney Gerald Desmond of Long Beach was then called upon for a specific report. He stated that the City now has an Order from the Court, finding the Agreement covering Fault Blocks II and III legal and proper; the agreement probably will be signed on the last day of February 1961, with all accounting to be effective as of March 1, 1961. He stated further that there has been tremendous progress on Fault Block IV, stressed the importance of completing the program for the entire field, reported that the time schedule is being met precisely, and advised that a letter had been transmitted to Admiral James in Washington, giving him this information. Thereafter, Mr. Desmond thanked the Commission, the staff, and the office of the Attorney General for their cooperation and assistance.

UPON MOTION DULY MADE AND UNANIMOUSLY CARRIED, THE FOLLOWING RESOLUTION WAS ADOPTED:

THE COMMISSION APPROVES A FUTURE CAPITAL-COST EXPENDITURE BY THE CITY OF LONG BEACH FOR AN EXPANDED WATERFLOOD PROGRAM IN THE TAR, RANGER, LOWER TERMINAL AND UPPER TERMINAL ZONES, FAULT BLOCKS II, III, IV, V, AND VI, WILMINGTON OIL FIELD, OF A SUM NOT TO EXCEED \$3,250,000, PLUS ANY UNEXPENDED BALANCE OF THE \$8,000,000 HERETOFORE AUTHORIZED TO BE SPENT BY SAID CITY, PURSUANT TO THE JUNE 13, 1957 (MINUTE ITEM 21, PAGES 3233-34), AND DECEMBER 11, 1958 (MINUTE ITEM 3, PAGE 4347), RESOLUTIONS OF THE COMMISSION. THE SUMS APPROVED ARE TO BE AUTHORIZED FOR WATER-INJECTION ACTIVITIES BOTH WITHIN AND OUTSIDE EXISTING LONG BEACH OIL DEVELOPMENT COMPANY PARCELS.

Attachment Calendar Item 23 (2 pages)

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CALENDAR ITEM

23.

REQUEST FOR APPROVAL OF ADDITIONAL CAPITAL EXPENDITURE WATER-INJECTION PROGRAM, TAR, RANGER, LOWER TERMINAL AND UPPER TERMINAL ZONES, FAULT BLOCKS II, III, IV, V AND VI, WILMINGTON OIL FIELD - L.B.W.O. 10,020.

On June 13, 1957 (Minute Item 21, pages 3233-3234), and on December 11, 1958 (Minute Item 3, page 4347), the Commission approved amendatory agreements to each of the respective six drilling and operating contracts heretofore entered into between the Board of Harbor Commissioners of the City of Long Beach and the Long Beach Oil Development Company, relating to tideland oil development on Parcels "W", "X", "Y", "Z", "Z-1" and "J", to provide for expanded waterflood programs and approved capital-cost expenditures, limited to \$8,000,000. The actual expenditure of authorized funds to September 30, 1960, was \$7,422,844.

The Harbor Department of the City of Long Beach has submitted for approval by the Commission a request for an additional \$3,250,000 capital-cost expenditure to complete the presently approved water-injection program and the future anticipated injection program in the upper four zones in Fault Blocks II, III, IV, V and VI.

The State Oil and Gas Supervisor, in accordance with the provisions of Section 3319.1 of the Public Resources Code, by orders adopted February 26, 1959, approved repressuring plans and specifications for work to be done in the Tar, Ranger, Upper Terminal and Lower Terminal Zones in Fault Blocks II, III, IV, and V; and Ranger, Upper Terminal, Lower Terminal, Union Pacific and Ford Zones in Fault Block VI. The City contemplates the immediate directional drilling, redrilling and/or conversion of a minimum of four water-injection wells and of such additional wells thereafter as are required for waterflood operations, to be bottomed in the Tar, Ranger, Upper Terminal and Lower Terminal Zones in Fault Blocks II, III, IV and V.

The City's contractor, Long Beach Oil Development Company, has notified the City that under the terms of the operating agreements it cannot presently undertake the proposed injection well drilling program, and agreed to the City's employing other persons to drill 12 proposed wells. It is necessary that the program be initiated immediately (1) in order that the Long Beach Harbor Department may improve its equity position under unit operations with respect to upland operators in Fault Block IV; (2) to further alleviate subsidence to the extent possible by expansion of the water-injection program; and (3) to improve the overall production performance of the total program.

It is estimated that expansion of the waterflood program at a cost of approximately \$3,250,000 will add to the recovery of secondary reserves of the Long Beach tidelands in the Ranger Zone (Fault Block IV), Tar and Ranger Zones (Fault Block V), and Lower Terminal Zone (Fault Block VI) to the extent of an estimated 87,792,000 barrels of oil, with a net value

-1-

CALENDAR ITEM 23. (CONTD.)

of \$96,660,000. The stimulated production due to tidelands water injection to date has been approximately 6,000,000 barrels.

IT IS RECOMMENDED THAT THE COMMISSION APPROVE A FUTURE CAPITAL-COST EXPENDITURE BY THE CITY OF LONG BEACH FOR AN EXPANDED WATERFLOOD PROGRAM IN THE TAR, RANGER, LOWER TERMINAL AND UPPER TERMINAL ZONES, FAULT BLOCKS II, III, IV, V, AND VI, WILMINGTON OIL FIELD, OF A SUM NOT TO EXCEED \$3,250,000, PLUS ANY UNEXPENDED BALANCE OF THE \$8,000,000 HERETOFORE AUTHORIZED TO BE SPENT BY SAID CITY, PURSUANT TO THE JUNE 13, 1957 (MINUTE ITEM 21, PAGES 3233-3234), AND DECEMBER 11, 1958 (MINUTE ITEM 3, PAGE: 4347), RESOLUTIONS OF THE COMMISSION. THE SUMS APPROVED ARE TO BE AUTHORIZED FOR WATER-INJECTION ACTIVITIES BOTH WITHIN AND OUTSIDE EXISTING LONG BEACH OIL DEVELOPMENT COMPANY PARCELS.